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TAB I
TO
APPENDIX 8
TO
ANNEX C
OPERATIONS ORDER 1-56

AIRCRAFT MISSION DESCRIPTION FLATHEAD

1. BLIND ALLEY, one through four B-57's (Project 2.66) Early Penetration Aircraft (including Early Penetration Controller), to be positioned by IFF, will take off at one minute intervals starting at approximately H minus 22 minutes. They will proceed under AOC control on a heading of 120° to a position 90 NM from ENIWETOK until H-Hour. After H-Hour aircraft will proceed under CIC control to 50 NM south of GZ at altitudes of 30,000 to 36,000 absolute and set up race track patterns until such time after T_0 as the CIC and the Early Penetration Control B-57 directs the aircraft to perform cloud penetration. After each aircraft penetrates the cloud they will depart individually at altitudes of 30,000 to 36,000 feet absolute for return to ENIWETOK and land at approximately H plus two hours to H plus two hours and thirty minutes.

2. SHELDON, one B-47 aircraft (Project 5.1), to be positioned by radar, will take off at approximately H minus 2 hours and proceed to the BIKINI area. It will be at an altitude of 30,000 feet absolute on a heading of 300° T with no horizontal offset to be over GZ at T_0 minus 4.7 seconds. The B-47 will orbit back from GZ in a 23 minute race track pattern entering a right hand box pattern at H minus 21 minutes with entry on the final run at H minus 6 minutes. Horizontal range of the aircraft at T_0 will be 3,500 feet short. Aircraft will return to Eniwetok at 38,000 feet absolute on an initial heading of 270° T and land at H plus 65 minutes.

3. JAYBIRD, one B-52 aircraft (Project 5.2), to be positioned by radar, will take off at approximately H minus 130 minutes and proceed to the BIKINI area. This mission will be flown in a left hand race-track pattern at an altitude of 19,500 feet absolute with an inbound heading of 300° T and with no horizontal offset. The aircraft will be over GZ at H minus 15.5 seconds. The B-52 will be 12,000 feet beyond GZ at T_0 with tail towards GZ. Upon completion of the mission in the BIKINI area, the aircraft will proceed to either ENIWETOK or Hickam Air Force Base, Hawaii, TH for landing. Estimated landing of aircraft at Hawaii is given as H plus 5 1/2 hours, or at ENIWETOK as H plus 120 minutes with return altitude of 20,000 feet.

4. CLARK, one B-66 aircraft (Project 5.3), to be positioned by radar, will take off at H minus 83 minutes and proceed to the BIKINI area. It will perform its mission at 16,000 feet absolute performing two left hand race-track patterns and one left hand wind-box pattern starting on the initial approach at approximately H minus 4 minutes and 48 seconds. The 40 mile run-in will be on an inbound heading of 120° with no horizontal offset. The aircraft will be over GZ at T_0 minus 14.2 seconds and will have a horizontal range of 14,000 feet at T_0. The aircraft will return to ENIWETOK at 34,000 feet absolute and land at approximately H plus 35 minutes.

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5. KIMONO, one B-57 aircraft (Project 5.4), to be positioned by Raydist, will take off at approximately H minus 45 minutes. It will perform a straight-in Raydist run with no orbit at 26,500 feet absolute on a heading of 120° T with no horizontal offset. The aircraft will be over GZ at H minus 16.1 seconds and will have a horizontal range of 12,600 feet at T_o. The B-57 will return to ENIWETOK at 30,000 feet absolute on an initial heading of 270° and land at approximately H plus 41 minutes.

6. WAITER, one F-84F Capabilities aircraft (Project 5.5), to be positioned by Raydist, will take off at approximately H minus 41 minutes. It will perform a straight-in Raydist run with no orbit at 21,000 feet absolute on a heading of 125° T with no horizontal offset. The aircraft will be over GZ at T_o plus 1 second and will have a horizontal range of minus 740 feet at T_o. This aircraft will carry one pylon tank, which will be dropped after entry into the Raydist pattern at H minus 18 minutes to H minus 15 minutes. The aircraft will climb to 36,000 feet absolute for return to ENIWETOK after completion of its mission. The aircraft will land at approximately H plus 48 minutes.

7. BARLEY, one F-84F Side Loads aircraft (Project 5.5), to be positioned by Raydist, will take off at approximately H minus 34 minutes. It will perform a straight-in Raydist run with no orbit at 18,000 feet absolute on a heading of 097° T with a horizontal offset of 34,400 feet south to be abreast of GZ at T_o plus 28 seconds and will have a horizontal range of minus 22,400 feet at T_o. This aircraft will be abreast of GZ at shock arrival time to receive side load effect. This aircraft will also carry a pylon tank and is clear to drop the tank after entry into the Raydist pattern (H-18 minutes). The aircraft will climb to 37,000 feet absolute for return to ENIWETOK for landing at approximately H plus 51 minutes.

8. MEREDITH, one F-101A aircraft (Project 5.6), to be positioned by Raydist, will take-off at approximately H minus 35 minutes. It will perform a straight-in Raydist run with no orbit at 28,000 feet absolute on a heading of 124° T with no horizontal offset. The aircraft will be over GZ at H-Hour and will return to ENIWETOK at 28,000 feet absolute for landing at approximately H plus 38 minutes.

9. LENA, one A3D aircraft (Project 5.8), to be positioned by Raydist, will take off at approximately H minus 2 hours and 6 minutes. It will perform a straight-in Raydist run at 14,000 feet absolute on a heading of 124° T passing near GZ & returning to a point 150 NM northwest of GZ in a left hand race-track pattern. In case of loss of Raydist, the aircraft will perform a secondary radar controlled pattern comprised of right hand race-track patterns with the IP 40 miles from GZ. The aircraft will pass over GZ with no horizontal offset at H minus 15 seconds and will have a horizontal range of plus 12,800 feet at T_o. The aircraft will return to ENIWETOK at 35,000 feet absolute for landing at approximately H plus 45 minutes.

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10. STUDENT, one P2V aircraft (Project 8.5), to be positioned by radar, will take off at H minus 2 hours and 45 minutes. It will perform its mission in a left hand race-track pattern (oriented 287° T and 107° T) at 23,000 feet absolute. This aircraft will pass 1,000 feet north of Charlie Island at T_o and will have a horizontal distance of 40,000 feet at T_o. The nearest distance this aircraft will be from GZ will be 15,500 feet on course 017° T, bearing 259° T from GZ at H minus 1 minute and 38 seconds. The aircraft will return to ENIWETOK on initial heading of 255° T at 10,300 feet absolute and will land at approximately H plus 70 minutes.

11. FLOYD, one C-97 aircraft (Project 6.3), to be positioned by radar, will take-off at approximately H minus 120 minutes and will proceed to its assigned area at 18,000 feet absolute. It will orbit over WOTHO ATOLL, 90 miles from GZ, and depart this position (inbound heading 325° T) at H minus 5 minutes to be in position X-RAY 25 miles south of GZ at H plus 20 minutes. Upon completion of its mission the aircraft will return to ENIWETOK for landing. (H plus 8 to 10 hours).

12. HARDTIME, three SAC IBDA B-47 aircraft to be positioned by radar, will take off at three minute intervals between H minus 1 hour and 48 minutes and H minus 1 hour and 42 minutes and proceed to the BIKINI area. HARDTIME 1 will establish a right hand race track pattern at 36,000 feet absolute on an inbound heading of 270° T with no horizontal offset to be at "release range" at H minus 50 seconds at which time it will perform a break to the right dropping to 34,000 feet absolute. This aircraft will be 21,500 feet from GZ at T_o. HARDTIME 2 will perform a left hand race-track pattern at 34,000 feet absolute and will have an in-bound heading of 270° T with no horizontal offset to be at "release range" at H minus 50 seconds at which time will perform a break to the left dropping to 32,000 feet. This aircraft will have a horizontal distance of 26,000 feet from GZ at T_o. HARDTIME 3 will perform a right hand race track pattern at 35,000 feet absolute in a position 25 miles southeast of GZ. All aircraft will remain in the shot area until H plus 20 minutes at which time they will join formation and return to ENIWETOK at an altitude (or altitudes) designated by the CIC and will land at approximately H plus 2 hours and 45 minutes.

13. PEWTER I and II, two C-54 Documentary Photography aircraft, to be positioned by IFF and navigator, will take off at H minus two and a half hours and proceed to the BIKINI area. PEWTER I will be positioned 30 miles southwest (225°) of GZ at 10,000 feet absolute in a race track pattern such that the left hand side of the aircraft will be towards GZ at H-Hour. PEWTER II will be 30 miles northwest (315°) of GZ at 12,000 feet absolute in a race track pattern such that the left hand side of the aircraft will be towards GZ at H-Hour. These aircraft will be cleared by the CIC to climb or descend to insure clear photographic shots of the detonation. Upon completion of PEWTER II's mission the aircraft will be cleared for return to ENIWETOK for landing. PEWTER I will perform a post H-Hour radio-telephone relay mission at 10,000 feet absolute, 90 miles west of BIKINI and will return to ENIWETOK for landing upon release by CIC.

14. CARTER I, II, and III, three RB-50 Technical Photography Aircraft, to be positioned by IFF, will take off at approximately H minus two and a half hours, and proceed to the BIKINI area. CARTER I will establish a counter-clockwise race track pattern such that the close-in leg will be 110 miles east (090°) of GZ at 20,000 feet absolute. CARTER II will establish a counter-clockwise race track pattern such that the close-in leg will be 110 miles south (180°) of GZ at 20,000 feet absolute. CARTER III will establish a counter-clockwise race track pattern such that the close in leg will be 50 miles west (270°) of GZ at 20,000 feet indicated. All CARTER aircraft will proceed to their assigned areas at 10,000 feet. They will climb to assigned altitudes of 20,000 feet at H minus one hour. If CARTER 2 should abort, CARTER 1 will assume his position and will also perform Post Shot duties of Crater Photo. After the Technical Photography mission is completed, two (2) aircraft will return to ENIWETOK for landing. The third aircraft may possibly remain in the BIKINI area to accomplish post-shot crater photography (H plus 2 hours), after which it will return to ENIWETOK for landing.

15. STABLE I, one SA-16 aircraft, to be positioned by its navigator, will take off at H minus three (3) hours and proceed to a point 60 miles west of the CIC (BARRYMORE). STABLE I will remain at this point at 9,000 feet absolute until relieved by the CIC. Aircraft will return to ENIWETOK for landing at approximately H plus 6 hours. STABLE II will take off at H minus 30 minutes and proceed to an orbit point at 9,000 feet absolute near BIKINI as directed by the CIC. It will remain in this position unless otherwise directed until approximately H plus six hours.

16. CASSIDY, one B-57 Sampler Controller, to be positioned by IFF, will take off at H minus one (1) hour and proceed to the BIKINI area. The controller aircraft will proceed to an orbit position 50 NM north of GZ at an altitude of 37,000 feet absolute and set up a race track pattern until such time after To that aircraft proceeds to the sample penetration area. CASSIDY will then direct the sampler aircraft into the radioactive cloud. Controller aircraft will return to ENIWETOK after last sampler penetration and land at approximately H plus four (4) hours and thirty minutes.

17. HOTSHOT I through IV, four B-57B Sampler Aircraft will take off at H plus one (1) hour to H plus three (3) hours and proceed to the BIKINI sampling area as directed by the AOC and CIC and the sampler controller aircraft. Aircraft will fly at an altitude of 37,000 feet absolute until contact is made with the Sampler Controller aircraft and cloud penetration instructions are received. Upon completion of the sampling mission aircraft will return to ENIWETOK and land at approximately H plus two hours to H plus four hours.

18. TIGER, six F-84F's will take off at H plus 1 hour and 30 minutes and proceed to the BIKINI area as directed by the AOC and CIC at 37,000 feet absolute. Upon making contact with the Sampler Controller aircraft, Samplers will make penetration as directed. Upon completion of the sampling mission, Samplers will return to ENIWETOK and land at approximately H plus 2 hours.

19. WILSON, one WB-50 Cloud Tracker aircraft to be positioned by the navigator and IFF, will take off at approximately H plus six (6) hours and proceed to the BIKINI area. It will orbit 50 NM northeast of GZ at 10,000 feet absolute until vectored to the cloud by the CIC. It will track the cloud and will return to ENIWETOK upon completion of its mission.

20. BACKDOOR, P2V's (Project 2.64) from KWAJALEIN will arrive under CIC control at approximately H minus 30 minutes. All BACKDOOR aircraft will maintain a race track pattern at 14,000 feet absolute, 75 to 100 miles southeast of GZ. These aircraft will move into the area at approximately 30 minutes after T_0 for fallout survey as directed.

21. Other aircraft may possibly be assigned to the FLATHEAD array but will be positioned well outside of the critical area and not in areas affecting other assigned aircraft. These aircraft used for observation purposes will be positioned perpendicular to the shot area at T_0 minus 2 minutes to allow clear view of the shot area.

a. VIKING 3, a C-118 aircraft to be positioned 50 NM northeast of GZ at 14,000 feet. Upon completion of its mission this aircraft will depart the area direct for Hawaii.

b. VIKING 4, a C-121 aircraft, to be stationed 50 NM northeast of GZ at 16,000 feet absolute. Upon completion of its mission this aircraft will be cleared for return to ENIWETOK at altitude directed by the CIC.

22. Aircraft altitudes for flight through H-Hour and altitudes for return to ENIWETOK are posted as follows in absolute measurements:

AIRCRAFT	ALTITUDE	RETURN ALTITUDES
CASSIDY	37,000	As required
HARDTIME I	36,000	34,000
BLIND ALLEY I	36,000	36,000
HARDTIME 3	35,000	35,000
HARDTIME 2	34,000	32,000
BLIND ALLEY 2	34,000	34,000
BLIND ALLEY 3	32,000	32,000
BLIND ALLEY 4	30,000	30,000
SHELDON	30,000	38,000

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AIRCRAFT	ALTITUDE	RETURN ALTITUDES
MEREDITH	28,000	28,000
KIMONO	26,500	30,000
STUDENT	23,000	10,300
WAITER	21,000	36,000
CARTER	20,000	As required
JAYBIRD	19,500	20,000
BARLEY	18,000	37,000
FLOYD	18,000	As required
VIKING 4	16,000	As required
CLARK	16,000	34,000
VIKING 3	14,000	As required
BACKDOOR	14,000	As required
LENA	14,000	35,000
PEWTER 2	12,000	As required
PEWTER 1	10,000	As required
STABLE 1 & 2	9,000	As required

* NOTE: All aircraft will remain at absolute altitudes until control position five is reached. The AOC will grant permission to change to indicated altitude upon aircraft request.

Attachment 1 to Tab A: Positioning Chart

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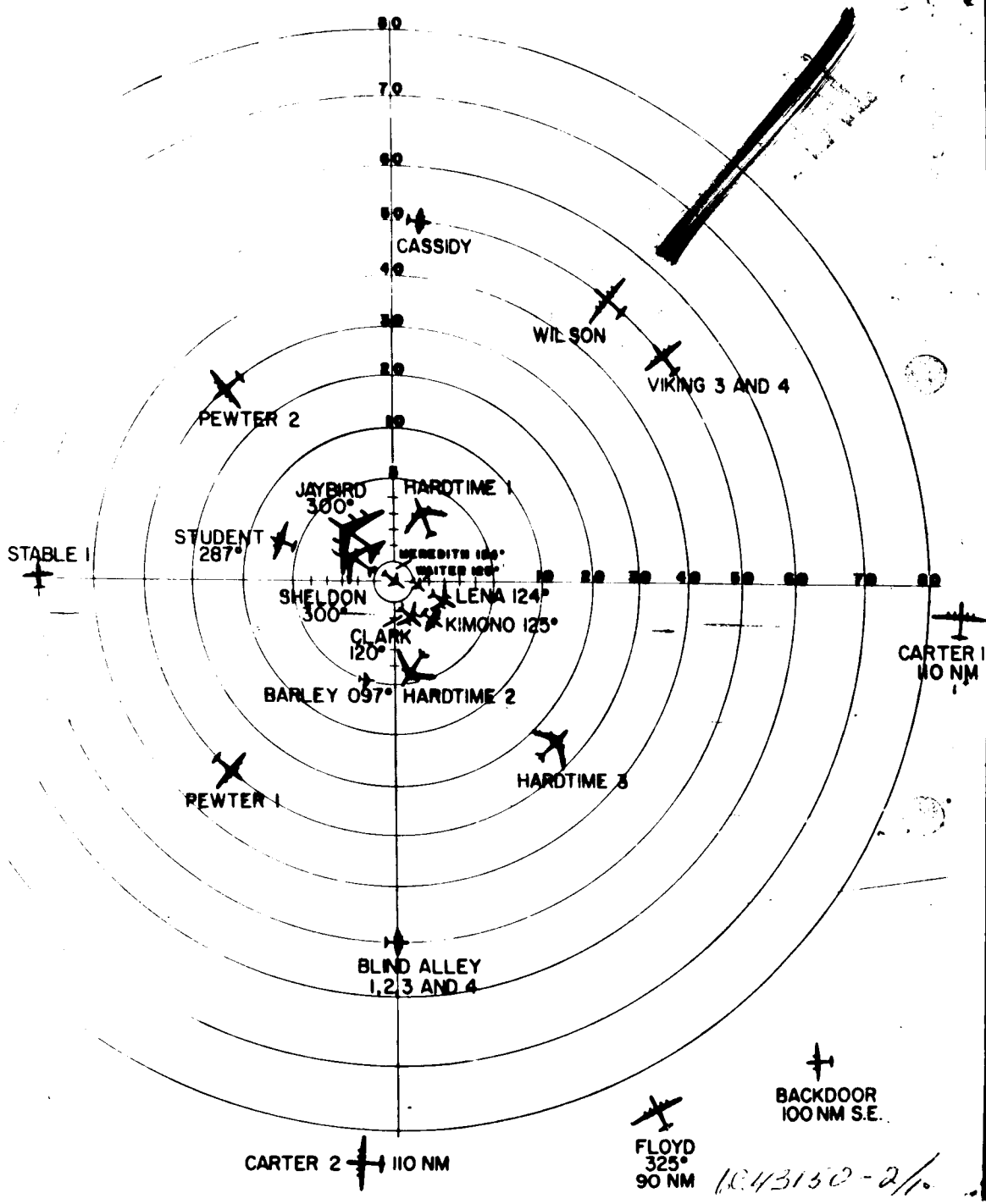
FLATHEAD

NONCRITICAL		CRITICAL
	45,000	
	40,000	
B-57	37,000	
	36,000	B-47,
	35,000	B-47
B-57	34,000	B-47
B-57	32,000	
B-57	30,000	
	28,000	F-101
	26,500	B-57
	25,000	
	23,000	P2V
	21,000	F-84F CAP
B-50	20,000	
	19,500	B-52
C-97	18,000	F-84F SL
B-50	16,000	B-66
	15,000	
	14,000	A3D
C-54	12,000	
	10,000	
SA-16	9000	
	5000	

CARTER 3
130 NM



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